



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,333	08/20/2001	Sreedharan P. Sreejith	SAMS01-00149	5966
7590	08/15/2005		EXAMINER	
Docket Clerk P.O. Box 800889 Dallas, TX 75380			MARCELO, MELVIN C	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 08/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/933,333	SREEJITH ET AL.	
	Examiner	Art Unit	
	Melvin Marcelo	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 05 July 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1,8 and 15 is/are rejected.
- 7) Claim(s) 2-7,9-14 and 16-20 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 20 August 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 07-05-2005 have been fully considered but they are not persuasive. Applicant argues that Lee does not mention "probabilities" or "likelihood." However, the applicant's specification also does not mention "probabilities" or "likelihood"; further, applicant's arguments do not address how "probabilities" or "likelihood" correspond to their disclosed embodiment. Therefore, the term "likelihood" is given a broad and reasonable interpretation. In Lee, "[b]y knowing the use state of every link, candidate paths that are actually selectable can be arranged, and the most suitable or optimum path can be selected among the candidate paths" (column 5, lines 18-21). The "use state" provides an indication of the "likelihood" of existing traffic blocking a desired data transfer since the arrangement of candidate paths would be from most suitable or optimum (i.e. low probability of blocking) to less suitable (i.e. high probability of blocking).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 8 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee (US 6,795,432 B1).

With respect to the claims below, references to the prior art appear in parenthesis.

1. For use in a switch fabric (Lee, Figure 4), a routing mechanism for directing data transfers through the switch fabric between an input port and an output port, wherein the switch fabric includes a plurality of paths from the input port to the output port (**State management and path setting process, column 4, lines 37-44 and column 5, lines 16-21**), the routing mechanism comprising:

a controller determining, for each of the plurality of paths, a likelihood of existing traffic blocking a desired data transfer from the input port to the output port on the respective path (**Managing state information for using each link, column 5, line 36 to column 6, line 61; and column 8, lines 39-51**),

wherein the controller selects one of the plurality of paths having a least likelihood of being blocked by the existing traffic for the desired data transfer (**Column 8, line 52 to column 9, line 7 and Figure 14, box S17**).

8. A switch fabric (Lee, Figure 4) comprising:

a plurality of input ports (**Inputs 1-8**);

a plurality of output ports (**Outputs 1-8**), wherein each of the plurality of input ports is coupled to each of the plurality of output paths by two or more paths (**Plurality of paths in the multi-stage switch fabric**);

a routing mechanism for directing data transfers through the switch fabric between an input port within the plurality of input ports and an output port within the plurality of output ports, wherein the switch fabric includes a plurality of paths from the input port to the output port (**State management and path setting process, column 4, lines 37-44 and column 5, lines 16-21**), the routing mechanism comprising:

a controller determining, for each of the plurality of paths, a likelihood of existing traffic blocking a desired data transfer from the input port to the output port on the respective path

(Managing state information for using each link, column 5, line 36 to column 6, line 61; and column 8, lines 39-51),

wherein the controller selects one of the plurality of paths having a least likelihood of being blocked by the existing traffic for the desired data transfer (Column 8, line 52 to column 9, line 7 and Figure 14, box S17).

15. For use in a switch fabric, a method of directing data transfers through the switch fabric between an input port and an output port, wherein the switch fabric includes a plurality of paths from the input port to the output port (Lee, Figure 4), the method comprising:

determining, for each of the plurality of paths, a likelihood of existing traffic blocking a desired data transfer from the input port to the output port on the respective path (Managing state information for using each link, column 5, line 36 to column 6, line 61; and column 8, lines 39-51); and

selecting one of the plurality of paths having a least likelihood of being blocked by the existing traffic for the desired data transfer (Column 8, line 52 to column 9, line 7 and Figure 14, box S17).

Allowable Subject Matter

4. Claims 2-7, 9-14 and 16-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to anticipate or make obvious the further features of the switch fabric associated with the tabulation of blocking count values for each output port within the multi-stage switch mesh.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Marcelo whose telephone number is 571-272-3125. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2662



Melvin Marcelo
Primary Examiner
Art Unit 2662

August 8, 2005